

REMARKS/ARGUMENTS

Favorable reconsideration of this application in view of the above amendments and following remarks is respectfully requested.

Claims 1-5 and 7-11 are pending in this application. By this amendment, Claims 1 and 10 are amended; Claim 6 is canceled; and no claims are added herewith. It is respectfully submitted that no new matter is added by this amendment.

In the outstanding Office Action, Claims 1-2, 4-5 and 9-11 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 5,949,377 to Matsumoto and further in view of U.S. Publication 2003/0103014 to Birnbaum; Claim 3 was rejected under 35 U.S.C. § 103(a) as unpatentable over Matsumoto in view of Birnbaum and further in view of U.S. Patent No. 5,281,765 to Lura; Claim 6 was rejected under 35 U.S.C. § 103(a) as unpatentable over Matsumoto in view of Birnbaum and further in view of U.S. Publication 2003/0052827 to Umehara; and Claims 7-8 were rejected under 35 U.S.C. § 103(a) as unpatentable over Matsumoto in view of Birnbaum and further in view of U.S. Patent No. 6,052,093 to Yao.

With respect to the rejection of the claims under 35 U.S.C. § 103(a), the applied art does not teach or suggest a notch antenna including a perpendicular portion rising substantially perpendicularly to the circuit substrate, and a parallel portion substantially parallel to the circuit substrate, the parallel portion formed so as to extend from the leading end of the perpendicular portion in a direction substantially orthogonal to the notch direction of said notch portion and to cross said notch portion, as claimed in Claim 1 and similarly claimed in Claim 10.

Instead, Matsumoto discloses, as best shown in Figure 44, a whip antenna 80 formed as the first antenna and a notch antenna 90 formed as the second antenna. The notch antenna 90 includes an opening 92 at a width h opposed to the whip antenna 80. The opening 92 is

positioned offset from a metallic member such as a shield metallic box 93 for containing an inner circuit substrate.

Birnbaum discloses as best shown in Figure 3b, a substantially continuous piece of conductive material 300 (sheet metal) where the metal has been bent or stamped along dashed lines 302 shown in Figure 3a. In this way, an electromagnetic shield 304 is formed along with a spacer 306 and an inverted-F antenna 308 having antenna feed 312. The spacer 306 has dimensions and is oriented to provide a separation between the electromagnetic shield 304 and inverted-F antenna 308.

Umehara merely discloses that between the inverted-F plate antenna 1 and the printed circuit board 7, a non-metallic spacer 6 is inserted to keep the inverted-F plate antenna 1 securely in position and to determine the gap between the inverted-F plate antenna 1 and the printed circuit board 7. The spacer 6 is inserted between the elongated conductor portion 1a of the inverted-F plate antenna and the printed circuit board 7 and is located away from the grounding and feeding conductor portions 1b and 1d.

None of the applied art teaches or suggests a notched antenna including a perpendicular portion rising substantially perpendicularly to the circuit substrate and a parallel portion substantially parallel to the circuit substrate, the parallel portion extends from the leading end of the perpendicular portion in a direction substantially orthogonal to the notch direction of said notch portion and to cross said notch portion. For example, Umehara discloses the spacer 6 between the conductor 1a and the circuit board 7. However, there is no disclosure for the conductor 1a to extend from the leading end of spacer 6. As shown in the figures, the space 6 appears to be placed in a middle portion of the conductor 1a.

Further, when an obviousness determination is based on multiple prior art references, there must be a showing by the patent examiner of some "teaching, suggestion, or reason" to combine the references. Gambro Lundia AB v. Baxter Healthcare Corp., 110 F.3d 1573,

1579, 42 USPQ2d 1378, 1383 (Fed. Cir. 1997) (also noting that the "absence of such a suggestion to combine is dispositive in an obviousness determination"). Whether motivation to combine the references is shown is a question of fact. See In re Dembiczak, 175 F.3d 994, 1000, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). Evidence of a suggestion, teaching, or motivation to combine prior art references may flow, *inter alia*, from the references themselves, the knowledge of one of ordinary skill in the art, or from the nature of the problem to be solved. See Dembiczak, 175 F.3d at 999, 50 USPQ2d at 1617. Although a reference need not expressly teach that the disclosure contained therein should be combined with another, see Motorola, Inc. v. Interdigital Tech. Corp., 121 F.3d 1461, 1472, 43 USPQ2d 1481, 1489 (Fed. Cir. 1997), the showing of combinability, in whatever form, must nevertheless be "clear and particular." Dembiczak, 175 F.3d at 999, 50 USPQ2d at 1617. "Trade-offs often concern what is feasible, not what is, on balance, desirable. Motivation to combine requires the latter." Winner International Royalty Corp. v. Wang, 53 USPQ2d 1580, 1587 (Fed. Cir. 2000). Interpreting the Supreme Court's decision in Dickinson v. Zurko, 50 USPQ2d 1930 (1999) regarding the standard of review in patent matters, the CAFC determined that when upholding a rejection of a claimed invention in an appeal, the CAFC must find that the decision by the USPTO Board of Appeals and Interferences is supported by "substantial evidence," In re Gartside, 53 USPQ2d 1769 (Fed. Cir. 2000). Accordingly, for a proper rejection based on a combination of references, the rejection must be supported by evidence that the motivation to combine references was not merely feasible, but desirable.

There is no teaching or suggestion for combining the inverted-F plate antenna of Umehara to the antenna system of Matsumoto. Again, the independent claims recite a parallel portion orthogonal to the notch direction of said notch portion and which crosses the notch portion. There is no suggestion that a combination of the applied art would result in the

structure of the claimed invention. Moreover, it is respectfully submitted that there is no basis in the teachings of the applied art to support their applied combination. Certainly, the outstanding Office Action fails to cite to any specific teachings within the references to support the applied combination. Accordingly, it is respectfully submitted that the combination of the applied art is the result of hindsight reconstruction in view of the teachings of the present specification, and is improper.

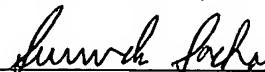
The claimed features discussed above provide at least the advantages of having a radio device with which it is possible to achieve a reduction in size and enhancement of antenna efficiency and gain. The applied art does not disclose the features of the claimed invention discussed above and therefore, cannot provide at least the advantages discussed above. Accordingly, withdrawal of the rejection of the claims under 35 U.S.C. § 103(a) is respectfully requested.

Consequently, for the reasons discussed in detail above, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal allowance. Therefore, a Notice of Allowance is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact the undersigned representative at the below listed telephone number.

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